



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,183	03/06/2002	Yoshiyuki Tanaka	Q68816	6333
23373	7590	10/07/2003	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037			NGUYEN, SON V	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,183

Applicant(s)

Tanaka et al.

Examiner

Son Nguyen

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on May 6, 2002 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

Art Unit: 2839

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshitaka (JP 2000-068622).

Yoshitaka discloses a holding structure of a terminal [5] and a substrate [1]:

- the terminal having a plurality of soldering portions [6, 7] each formed by dividing a soldering portion of the terminal into small portions [6a, 7a];
- the soldering portions are held on a land portion [3] of the substrate by soldering [figure 3];
- a connection hole formed in the substrate [figure 1];
- a round terminal inserting hole [2] formed in the landing portion [3]; and
- an indent portion [2a] formed in a peripheral side of the land portion.

Claim Rejections - 35 USC § 103

Art Unit: 2839

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haruo (JP 09-186475) in view of Raistrick (US 6,315,615).

Haruo discloses a holding structure [figures 1-7] of a terminal [22] and a substrate [20], comprising:

- the terminal [22] having a soldering portion [22a] inserted into a connecting hole of the substrate [20];
- the substrate having a land portion [23] around the connecting hole for soldering with the soldering portion of the terminal [figure 5];
- a terminal plate [11] having a positioning hole [15];

Haruo discloses the instant claimed invention as described above except for a retaining portion provided in the positioning hole of the terminal plate for holding the intermediate portion of the terminal and a terminal press-fitting portion projecting upwardly from an upper surface of the terminal plate.

Raistrick teaches a retaining portion [figures 4-8] formed in a hole of a connector housing for holding an intermediate portion [74, 66] of a terminal [56], and a terminal press-fitting portion projecting upwardly from an upper surface of housing [figure 5].

Art Unit: 2839

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the holding structure of Haruo to provide the retaining and holding elements as taught by Raistrick for the purpose of facilitating supporting and retaining the terminal, as is well known in the art of the electrical connector.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haruo in view of Atsuhiko et al. (JP 10-223284)

Haruo discloses the instant claimed invention as described above except for the intermediate portion of the terminal is bent.

Atsuhiko et al. discloses a holding structure of terminal and a substrate, wherein the terminal comprises a bent at a intermediate portion of the terminal [figure 2].

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the terminal of Haruo to provide the bent portion as taught by Atsuhiko et al. in order to facilitate the heat distribution.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son Nguyen whose telephone number is (703) 308-8745.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on (703) 308-6080. The fax phone number for this Group is (703) 308-7722.

Application/Control Number: 10/091,183

Page 5

Art Unit: 2839

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782.



SON V. NGUYEN
PATENT EXAMINER